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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/810,408	03/26/2004	Min Chuin Hoo	15625US02	8918

23446 7590 04/23/2007  
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CHICAGO, IL 60661

EXAMINER
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JOSEPH, JAISON

ART UNIT	PAPER NUMBER
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2611

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/23/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/810,408	HOO ET AL.	
	Examiner	Art Unit	
	Jaison Joseph	2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 March 2004.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Specification*

The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1 – 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Euscher et al (US Patent 5,991,613).

Regarding claim 1, Euscher et al teach a method for selecting at least one signal path, the method comprising: determining a signal quality metric for each of a plurality of signal paths (see figure 1, and column 2, line 57 – column 3, line 10); assigning a threshold signal quality metric for the plurality of signal paths (see column 2, line 57 – column 3, line 10); and discarding a signal path from the plurality of signal paths, if the

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determined signal quality metric for the signal path does not satisfy the threshold signal quality metric (see column 2, line 57 – column 3, line 10).

Regarding claim 2, which inherits the limitations of claim 1, Euscher et al further teach assigning a different threshold signal quality metric for each of the plurality of signal paths (see column 2, lines 57 – column 3, line 10).

Regarding claim 3, which inherits the limitations of claim 1, Euscher et al further teach assigning a fixed threshold signal quality metric for each of the plurality of signal paths (see figure 1).

Regarding claim 4, which inherits the limitations of claim 1, Euscher et al further teach dynamically changing the threshold signal quality metric for each of the plurality of signal paths (see figure 1, threshold value updater).

Regarding claim 5, which inherits the limitations of claim 1, Euscher et al further teach wherein the signal quality metric comprises at least one of a power level characteristic, a packet error rate characteristic, a bit error rate characteristic, a propagation channel characteristic, and an interference level characteristic (see figure 1, and abstract).

Regarding claim 6, which inherits the limitations of claim 1, Euscher et al further teach wherein at least one of the signal paths comprises an antenna (see figure 1, component A1 and A2).

Regarding claim 7, which inherits the limitations of claim 1, Euscher et al further teach wherein each of the plurality of signal paths comprises at least one of a receive signal path and a transmit signal path (see figure 1, the transceiver).

Regarding claim 15, the claimed system including the features that corresponds with subject matter mentioned above in the rejection of claim 1 is applicable hereto.

Regarding claim 16, which inherits the limitations of claim 15, the claimed system including the features that corresponds with subject matter mentioned above in the rejection of claim 2 is applicable hereto.

Regarding claim 17, which inherits the limitations of claim 15, the claimed system including the features that corresponds with subject matter mentioned above in the rejection of claim 3 is applicable hereto.

Regarding claim 18, which inherits the limitations of claim 15, the claimed system including the features that corresponds with subject matter mentioned above in the rejection of claim 4 is applicable hereto.

Regarding claim 19, which inherits the limitations of claim 15, the claimed system including the features that corresponds with subject matter mentioned above in the rejection of claim 5 is applicable hereto.

Regarding claim 20, which inherits the limitations of claim 15, the claimed system including the features that corresponds with subject matter mentioned above in the rejection of claim 6 is applicable hereto.

Regarding claim 21, which inherits the limitations of claim 15, the claimed system including the features that corresponds with subject matter mentioned above in the rejection of claim 7 is applicable hereto.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8 – 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Euscher et al (US Patent 5,991,613) in view of Koerner (US Patent 7,049,933).

Regarding claim 8 - 14, Euscher et al is cited as explained in the above paragraph. Euscher et al does not expressly teach the antenna selecting functions is done by a Machine-readable medium having stored instructions stored thereon to perform the cited functions. However, Koerner teach a Machine-readable medium having stored instructions stored thereon to perform selecting at least one signal path (see column 15, lines 39 – 57). Therefore it would be obvious to an ordinary skilled in the art at the time the invention was made to perform Euscher's method in a machine-readable medium. The motivation or suggestion to do so is to reduce the cost of the receiver.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jaison Joseph whose telephone number is (571) 272-6041. The examiner can normally be reached on M-F 9:30 - 6:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chieh Fan can be reached on (571) 272-3042. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jaison Joseph  
04/13/2007

  
CHIEH M. FAN  
SUPERVISORY PATENT EXAMINER